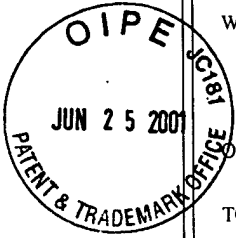


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On June 20, 2001

TOWNSEND and TOWNSEND and CREW LLP

By: Jennifer K. Hardin

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Lisa Kajisa et al.

Application No.: 09/811,143

Filed: March 15, 2001

For: METHODS OF ENHANCING
FUNCTIONAL PERFORMANCE OF
NUCLEIC ACID ARRAYS

Examiner: Unassigned

Art Unit: 1645

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

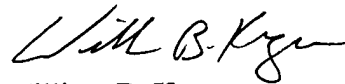
The references cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and

no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



William B. Kezer
Reg. No. 37,369

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 3

Complete if Known

Application Number	09/811,143
Filing Date	March 15, 2001
First Named Inventor	Lisa Kajisa
Group Art Unit	1645
Examiner Name	Unassigned
Attorney Docket Number	18547-042310US

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	1	5,143,854		Pirung et al.	9/1/92	
	2	5,242,979		Barnum et al.	9/7/93	
	3	5,252,743		Barrett et al.	10/12/93	
	4	5,288,514		Ellman	2/22/94	
	5	5,324,633		Fodor et al.	6/28/94	
	6	5,324,663		Lowe	6/28/94	
	7	5,384,261		Winkler et al.	1/24/95	
	8	5,405,783		Pirung et al.	4/11/95	
	9	5,412,087		McGall et al.	5/2/95	
	10	5,424,186		Fodor et al.	6/13/95	
	11	5,445,934		Fodor et al.	8/29/95	
	12	5,451,683		Barrett et al.	9/19/95	
	13	5,482,867		Barrett et al.	1/9/96	
	14	5,489,678		Fodor et al.	2/6/96	
	15	5,491,074		Aldwin et al.	2/13/96	
	16	5,510,270		Fodor et al.	4/23/96	
	17	5,527,681		Holmes	6/18/96	
	18	5,545,531		Rava et al.	8/13/96	
	19	5,547,839		Dower et al.	8/20/96	
	20	5,550,215		Holmes	8/27/96	
	21	5,556,752		Lockhart et al.	9/17/96	
	22	5,571,639		Hubbell et al.	11/5/96	
	23	5,578,832		Trulson et al.	11/26/96	
	24	5,593,839		Hubbell et al.	1/14/97	
	25	5,599,695		Pease et al.	2/4/97	
	26	5,624,711		Sundberg et al.	4/29/97	
	27	5,631,734		Stem et al.	5/20/97	
	28	5,658,734		Brock, et al.	8/19/97	
	29	5,677,195		Winkler et al.	10/14/97	
	30	5,710,000		Sapolsky et al.	1/20/98	
	31	5,744,101		Fodor et al.	4/28/98	
	32	5,744,305		Fodor et al.	4/28/98	
	33	5,753,788		Fodor et al.	5/19/98	
	34	5,770,456		Holmes	6/23/98	
	35	5,800,992		Fodor et al.	9/1/98	
	36	5,831,070		Pease et al.	11/3/98	
	37	5,843,655		McGall	12/1/98	
	38	5,856,011		Sogabe	1/5/99	
	39	5,919,523		Sundberg et al.	7/6/99	
	40	6,022,963		McGall et al.	2/8/00	
	41	6,045,996		Cronin et al.	4/4/00	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 3

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Application Number	09/811,143
Filing Date	March 15, 2001
First Named Inventor	Lisa Kajisa
Group Art Unit	1645
Examiner Name	Unassigned
Attorney Docket Number	18547-042310US

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office 3	Number ⁴	Kind Code ⁵ (if known)				
	42	PCT	WO 92/10183		Hill	6/25/92		<input type="checkbox"/>
	43	PCT	WO 99/00730		Tremblay et al	1/7/99		<input type="checkbox"/>
	44	PCT	WO 93/04145		Inoue et al.	3/4/93		<input type="checkbox"/>
	45	PCT	WO 97/10365		Lockhart et al.	3/20/97		<input type="checkbox"/>
	46	PCT	WO 92/10092		Fodor et al.	6/25/92		<input type="checkbox"/>
	47	PCT	WO 94/10128		Holmes et al.	5/11/94		<input type="checkbox"/>
	48	PCT	WO 00/61282		Glazer et al.	10/19/00		<input type="checkbox"/>
	49	PCT	WO 00/21967		McGall et al.	04/20/00		
	50	PCT	WO 00/06771		McGall et al.	02/10/00		
	51	PCT	WO 99/54509		McGall et al.	10/28/99		
	52	PCT	WO 99/40105		Goldberg et al.	02/12/99		
	53	PCT	WO 98/39348		McGall et al.	09/11/98		
	54	PCT	WO 98/20967		Beecher et al.	05/22/98		
	55	PCT	WO 97/39151		Goldberg et al.	10/23/97		
	56	PCT	WO 97/43450		Cronin et al.	11/20/97		
	57	PCT	WO 97/27317		Lockhart et al.	07/31/97		
	58	PCT	EP 742287		McGall et al.	11/13/96		
	59	PCT	EP 7288520		Pease et al.	08/28/96		
	60	EPO	EP 549107		Western et al.	12/29/97		
	61	EPO	967217 A2		McGall et al.	12/29/99		

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	62	MCGALL <i>et al.</i> , "The Efficiency of Light-Directed Synthesis of DNA Arrays on Glass Substrates" <i>Journal of the American Chemical Society</i> , 1997, Pages 5081-5090, Vol. 119, No. 22	<input type="checkbox"/>
	63	LOCKHART <i>et al.</i> , "Expression monitoring by hybridization to high-density oligonucleotide arrays" <i>Nature Biotechnology</i> , 1996, Pages 1675-1680, Vol. 14	<input type="checkbox"/>
	64	SAIZIEU <i>et al.</i> , "Bacterial transcript imaging by hybridization of total RNA to oligonucleotide arrays" <i>Nature Biotechnology</i> , 1998, Pages 45-48, Vol. 16	<input type="checkbox"/>
	65	CHEE <i>et al.</i> , "Accessing Genetic Information with High-Density DNA Arrays" <i>Science</i> , 1996, Pages 610-614, Vol. 274	

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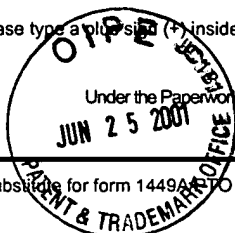


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Application Number	09/811,143
Filing Date	March 15, 2001
First Named Inventor	Lisa Kajisa
Group Art Unit	1645
Examiner Name	Unassigned
Attorney Docket Number	18547-042310US

66	McGALL <i>et al.</i> , "High-density oligonucleotide probe arrays" <i>Proc. SPIE-Int. Soc. Opt. Eng.</i> , 2000, Pages 106-110, Vol. 3926 (Advances in Nucleic Acid and Protein Analyses, Manipulation, and Sequencing)	
67	WALLRAFF <i>et al.</i> , "Lithographic techniques for the fabrication of oligonucleotide arrays" <i>J. Photopolym. Sci. Technol.</i> , 2000, Pages 551-558, Vol. 13	
68	GLAZER <i>et al.</i> , "High Surface Area Substrates for DNA Arrays" <i>Mat. Res. Soc. Symp. Proc.</i> , 1999, Pages 371-6, Vol. 576	
69	FIDANZA <i>et al.</i> , "High-Density Nucleoside Analog Probe Arrays for Enhanced Hybridization" <i>Nucleosides and Nucleotides</i> , 1999, Pages 1293-1295, Vol. 18	
70	HACIA <i>et al.</i> , "Enhanced High Density Oligonucleotide Array Based Sequence Analysis using Modified Nucleotide Triphosphates" <i>Nucleic Acids Res.</i> , 1998, Pages 4975-4982, Vol. 26	
71	PIRRUNG <i>et al.</i> , "Proofing of Photolithographic DNA synthesis with 3', 5' - dimethoxybenzoinyloxycarbonyl-protected deoxy-nucleoside phosphoramidites" <i>J. Org. Chem.</i> , 1998, Pages 241-246, Vol. 63	

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